



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/786,791

DATE: 09/16/2004

TIME: 12:20:54

Input Set : N:\Crf3\RULE60\10786791.raw

Output Set: N:\CRF4\09162004\J786791.raw

1 <110> APPLICANT: Zhang, Zhaoda
2 Amedio, John C.
3 Caravan, Peter D.
4 Dumas, Stephane
5 Kolodziej, Andrew
6 McMurphy, Thomas J.
7 <120> TITLE OF INVENTION: PEPTIDE-BASED MULTIMERIC TARGETED
8 CONTRAST AGENTS
9 <130> FILE REFERENCE: 13498-010002
10 <140> CURRENT APPLICATION NUMBER: US/10/786,791
11 <141> CURRENT FILING DATE: 2004-02-24
12 <150> PRIOR APPLICATION NUMBER: US/10/209,183
13 <151> PRIOR FILING DATE: 2002-07-30
14 <150> PRIOR APPLICATION NUMBER: US 60/308,721
15 <151> PRIOR FILING DATE: 2001-07-30
16 <160> NUMBER OF SEQ ID NOS: 27
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 4
21 <212> TYPE: PRT
22 <213> ORGANISM: Artificial Sequence
23 <220> FEATURE:
24 <223> OTHER INFORMATION: synthetically generated peptide
25 <220> FEATURE:
26 <221> NAME/KEY: VARIANT
27 <222> LOCATION: 1
28 <223> OTHER INFORMATION: Xaa = Pro or a non-natural derivative thereof
29 <220> FEATURE:
30 <221> NAME/KEY: VARIANT
31 <222> LOCATION: 2
32 <223> OTHER INFORMATION: Xaa = Tyr or a non-natural derivative thereof
33 <220> FEATURE:
34 <221> NAME/KEY: VARIANT
35 <222> LOCATION: 3
36 <223> OTHER INFORMATION: Xaa = Gly or Asp, or a non-natural derivative of
37 Gly or Asp
38 <220> FEATURE:
39 <221> NAME/KEY: VARIANT
40 <222> LOCATION: 4
41 <223> OTHER INFORMATION: Xaa = Leu or a non-natural derivative thereof
42 <400> SEQUENCE: 1
W--> 43 Xaa Xaa Xaa Xaa
44 1

ENTERED

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```

46 <210> SEQ ID NO: 2
47 <211> LENGTH: 11
48 <212> TYPE: PRT
49 <213> ORGANISM: Artificial Sequence
50 <220> FEATURE:
51 <223> OTHER INFORMATION: synthetically generated peptide
52 <220> FEATURE:
53 <221> NAME/KEY: VARIANT
54 <222> LOCATION: 1
55 <223> OTHER INFORMATION: Xaa = Trp, Tyr, Phe, Ser, nTyr, dW, dF, F(3/4*), Y(3*), or a
56     non-natural derivative thereof
57 <220> FEATURE:
58 <221> NAME/KEY: VARIANT
59 <222> LOCATION: 2
60 <223> OTHER INFORMATION: Xaa = Glu, His, dGlu, Ser, or a non-natural derivative
thereof
61 <220> FEATURE:
62 <221> NAME/KEY: VARIANT
63 <222> LOCATION: 4
64 <223> OTHER INFORMATION: Xaa = Pro or a non-natural derivative thereof
65 <220> FEATURE:
66 <221> NAME/KEY: VARIANT
67 <222> LOCATION: 5
68 <223> OTHER INFORMATION: Xaa = Tyr or a non-natural derivative thereof
69 <220> FEATURE:
70 <221> NAME/KEY: VARIANT
71 <222> LOCATION: 6
72 <223> OTHER INFORMATION: Xaa = Gly or Asp
73 <220> FEATURE:
74 <221> NAME/KEY: VARIANT
75 <222> LOCATION: 9
76 <223> OTHER INFORMATION: Xaa = His, Phe, Tyr, or Trp
77 <220> FEATURE:
78 <221> NAME/KEY: VARIANT
79 <222> LOCATION: 10
80 <223> OTHER INFORMATION: Xaa = Ile, Leu, Val, Asn, F(3/4*), or a non-natural
81     derivative thereof
82 <220> FEATURE:
83 <221> NAME/KEY: VARIANT
84 <222> LOCATION: 11
85 <223> OTHER INFORMATION: Xaa = Asn, Gln, Ile, Leu, Val, or absent
86 <400> SEQUENCE: 2
W--> 87     Xaa Xaa Cys Xaa Xaa Xaa Leu Cys Xaa Xaa Xaa
88         1             5             10
89
90 <210> SEQ ID NO: 3
91 <211> LENGTH: 6
92 <212> TYPE: PRT
93 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:
95 <223> OTHER INFORMATION: synthetically generated peptide

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/786,791

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Input Set : N:\Crif3\RULE60\10786791.raw

Output Set : N:\CRF4\09162004\J786791.raw

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96 <220> FEATURE:
97 <221> NAME/KEY: VARIANT
98 <222> LOCATION: 2
99 <223> OTHER INFORMATION: Xaa = Pro or 4-hydroxyproline
100 <220> FEATURE:
101 <221> NAME/KEY: VARIANT
102 <222> LOCATION: 3
103 <223> OTHER INFORMATION: Xaa = Tyr or a non-natural derivative of tyrosine
104 <220> FEATURE:
105 <221> NAME/KEY: VARIANT
106 <222> LOCATION: 4
107 <223> OTHER INFORMATION: Xaa = Gly or Asp
108 <400> SEQUENCE: 3
W--> 109      Cys Xaa Xaa Xaa Leu Cys
110          1              5
112 <210> SEQ ID NO: 4
113 <211> LENGTH: 11
114 <212> TYPE: PRT
115 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: synthetically generated peptide
118 <220> FEATURE:
119 <221> NAME/KEY: MOD_RES
120 <222> LOCATION: 4
121 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
122 <220> FEATURE:
123 <221> NAME/KEY: MOD_RES
124 <222> LOCATION: 5
125 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
126 <400> SEQUENCE: 4
W--> 127      Trp Glu Cys Xaa Xaa Gly Leu Cys Trp Ile Gln
128          1              5              10
130 <210> SEQ ID NO: 5
131 <211> LENGTH: 11
132 <212> TYPE: PRT
133 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: synthetically generated peptide
136 <220> FEATURE:
137 <221> NAME/KEY: MOD_RES
138 <222> LOCATION: 4
139 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
140 <220> FEATURE:
141 <221> NAME/KEY: MOD_RES
142 <222> LOCATION: 5
143 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
144 <400> SEQUENCE: 5
W--> 145      Tyr Glu Cys Xaa Xaa Gly Leu Cys Tyr Ile Gln
146          1              5              10

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Input Set : N:\Crif3\RULE60\10786791.raw

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```

148 <210> SEQ ID NO: 6
149 <211> LENGTH: 11
150 <212> TYPE: PRT
151 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: synthetically generated peptide
154 <220> FEATURE:
155 <221> NAME/KEY: MOD_RES
156 <222> LOCATION: 4
157 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
158 <220> FEATURE:
159 <221> NAME/KEY: MOD_RES
160 <222> LOCATION: 5
161 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
162 <400> SEQUENCE: 6
W--> 163      Tyr Glu Cys Xaa Xaa Gly Leu Cys Trp Ile Gln
164          1              5              10
166 <210> SEQ ID NO: 7
167 <211> LENGTH: 11
168 <212> TYPE: PRT
169 <213> ORGANISM: Artificial Sequence
170 <220> FEATURE:
171 <223> OTHER INFORMATION: synthetically generated peptide
172 <220> FEATURE:
173 <221> NAME/KEY: MOD_RES
174 <222> LOCATION: 4
175 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
176 <220> FEATURE:
177 <221> NAME/KEY: MOD_RES
178 <222> LOCATION: 5
179 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
180 <400> SEQUENCE: 7
W--> 181      Trp Glu Cys Xaa Xaa Gly Leu Cys Tyr Ile Gln
182          1              5              10
184 <210> SEQ ID NO: 8
185 <211> LENGTH: 11
186 <212> TYPE: PRT
187 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: synthetically generated peptide
190 <220> FEATURE:
191 <221> NAME/KEY: MOD_RES
192 <222> LOCATION: 4
193 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
194 <220> FEATURE:
195 <221> NAME/KEY: MOD_RES
196 <222> LOCATION: 5
197 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
198 <400> SEQUENCE: 8

```

RAW SEQUENCE LISTING

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```

W--> 199      Trp Glu Cys Xaa Xaa Asp Leu Cys Trp Ile Gln
      200          1          5          10
      202 <210> SEQ ID NO: 9
      203 <211> LENGTH: 11
      204 <212> TYPE: PRT
      205 <213> ORGANISM: Artificial Sequence
      206 <220> FEATURE:
      207 <223> OTHER INFORMATION: synthetically generated peptide
      208 <220> FEATURE:
      209 <221> NAME/KEY: MOD_RES
      210 <222> LOCATION: 4
      211 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
      212 <220> FEATURE:
      213 <221> NAME/KEY: MOD_RES
      214 <222> LOCATION: 5
      215 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
      216 <400> SEQUENCE: 9
W--> 217      Tyr Glu Cys Xaa Xaa Asp Leu Cys Tyr Ile Gln
      218          1          5          10
      220 <210> SEQ ID NO: 10
      221 <211> LENGTH: 11
      222 <212> TYPE: PRT
      223 <213> ORGANISM: Artificial Sequence
      224 <220> FEATURE:
      225 <223> OTHER INFORMATION: synthetically generated peptide
      226 <220> FEATURE:
      227 <221> NAME/KEY: MOD_RES
      228 <222> LOCATION: 4
      229 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
      230 <220> FEATURE:
      231 <221> NAME/KEY: MOD_RES
      232 <222> LOCATION: 5
      233 <223> OTHER INFORMATION: Xaa = meta-chlorotyrosine
      234 <400> SEQUENCE: 10
W--> 235      Tyr Glu Cys Xaa Xaa Asp Leu Cys Trp Ile Gln
      236          1          5          10
      238 <210> SEQ ID NO: 11
      239 <211> LENGTH: 11
      240 <212> TYPE: PRT
      241 <213> ORGANISM: Artificial Sequence
      242 <220> FEATURE:
      243 <223> OTHER INFORMATION: synthetically generated peptide
      244 <220> FEATURE:
      245 <221> NAME/KEY: MOD_RES
      246 <222> LOCATION: 4
      247 <223> OTHER INFORMATION: Xaa = 4-hydroxyproline
      248 <220> FEATURE:
      249 <221> NAME/KEY: MOD_RES
      250 <222> LOCATION: 5

```

RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : N:\Crf3\RULE60\10786791.raw
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4
Seq#:2; Xaa Pos. 1,2,4,5,6,9,10,11
Seq#:3; Xaa Pos. 2,3,4
Seq#:4; Xaa Pos. 4,5
Seq#:5; Xaa Pos. 4,5
Seq#:6; Xaa Pos. 4,5
Seq#:7; Xaa Pos. 4,5
Seq#:8; Xaa Pos. 4,5
Seq#:9; Xaa Pos. 4,5
Seq#:10; Xaa Pos. 4,5
Seq#:11; Xaa Pos. 4,5
Seq#:12; Xaa Pos. 1,4,5
Seq#:13; Xaa Pos. 4,5
Seq#:14; Xaa Pos. 5
Seq#:15; Xaa Pos. 4
Seq#:16; Xaa Pos. 4,5
Seq#:17; Xaa Pos. 8
Seq#:18; Xaa Pos. 8,9
Seq#:19; Xaa Pos. 10
Seq#:20; Xaa Pos. 10
Seq#:21; Xaa Pos. 10
Seq#:22; Xaa Pos. 10
Seq#:23; Xaa Pos. 10
Seq#:24; Xaa Pos. 10
Seq#:25; Xaa Pos. 10
Seq#:26; Xaa Pos. 1,2,10,11

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:2; Line(s) 55,60

VERIFICATION SUMMARY

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Input Set : N:\Crf3\RULE60\10786791.raw

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L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0